

ABSTRACT OF THE DISCLOSURE

A workpiece, in which a lead is laid on top of a three-dimensional porous metal body, is placed between an ultrasonic horn and an anvil with a lead portion facing the ultrasonic horn. A support is raised so that the lead portion of the workpiece is pressed between the ultrasonic horn and the anvil. While being rotated around a central shaft with a motor, the ultrasonic horn vibrates at a frequency of 20 kHz in the shaft direction. Thus, the workpiece is advanced continuously, so that the lead is bonded ultrasonically to the three-dimensional porous metal body (i.e., metal-to-metal bonding is established). It is possible to provide a battery electrode that can be produced continuously at a lower running cost, reduce the faulty welding with a current collecting plate, and prevent short-circuits.